

Notice of Allowability

Application No.

09/913,008

Examiner

Jeffrey B. Robertson

Applicant(s)

TERFLOTH ET AL.

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Interview of August 19, 2005.
2. ☒ The allowed claim(s) is/are 47-57, 59, 61, 64-72, 74-77, 79, 80, 82 and 83.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

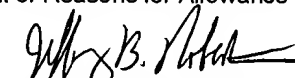
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 081905.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


JEFFREY ROBERTSON
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Vincent M. Fazzari on 8/19/05.

The application has been amended as follows:

Please replace the claims with this set of claims:

Listing of Claims:

Claims 1 to 46 (cancelled).

Claim 47 (previously presented): A reactive isocyanate-terminated multicomponent coating and/or adhesive material comprising as separate components:

- (a) a first component in granular form comprising an isocyanate-reactive polymer having a molecular weight M_n of at least 8,000 g/mol wherein the content of said isocyanate-reactive polymer in said first component is 20 to 100 wt.%; and,
- (b) a second component in granular form comprising a reactive isocyanate-terminated cross-linking agent comprising an isocyanate solid at room-temperature;

wherein the reactive multicomponent coating and/or adhesive material further comprises a polymer which is not isocyanate-reactive and which is selected from the group consisting of an ethylene/vinyl-acetate copolymer, a polyolefin and mixtures thereof.

Claim 48 (previously presented): The multicomponent coating and/or adhesive material of claim 47, wherein the ethylene/vinylacetate copolymer has a vinyl-acetate content of from 12 to 40%, and a melting indice of from 8 to 800.

Claim 49 (previously presented): The multicomponent coating and/or adhesive material of claim 47, wherein the polyolefin has an average molecular weight M_n of from 5,000 to 25,000 g/mol, and a softening range of from 80° to 170°C.

Claim 50 (previously presented): The multicomponent coating and/or adhesive material of claim 47, wherein the first component contains 5 to 35 wt.% of said non-isocyanate-reactive polymer.

Claim 51 (previously presented): The multicomponent coating and/or adhesive material of claim 47, wherein said isocyanate solid at room temperature is selected from the group consisting of 4,4'-diisocyanato-diphenylmethane (MDI), 4,4',4"-trisocyanato-triphenylmethane, tris-(4-isocyanatophenyl)-thiophosphate, 1, 5-diisocyanato-naphthalene (NDI) and isomers thereof, dimers of 2,4-diisocyanato-toluene (TDI) and of 1-isocyanato-3-isocyanatomethyl-3,5,5-trimethylcyclohexane (IPDI) and their hydration products, trimers of 1-isocyanato-3-isocyanatomethyl-3,5,5-trimethylcyclohexane (IPDI) and mixtures thereof.

Claim 52 (previously amended): The multicomponent coating and/or adhesive material of claim 47, wherein the isocyanate-reactive starting polymer has an average molecular weight M_n of from 8000 to 50,000 g/mol, wherein said isocyanate-reactive starting polymer is selected from the group consisting of polyesters, polycaprolactonepolyesters, polyethers, polyurethanes, polyamides, polytetrahydrofuranes, and mixtures thereof and has at least two isocyanate-reactive groups with reactive hydrogen atoms per molecule.

Claim 53 (previously presented): The multicomponent coating and/or adhesive material of claim 47, wherein the content of said isocyanate-reactive polymer is 50 to 95 wt. %.

Claim 54 (previously presented): The multicomponent coating and/or adhesive material of claim 47, wherein at least one of (a) and (b) comprise at least one resin, wherein said resin is selected from the group consisting of aliphatic, cyclic or cycloaliphatic hydrocarbon resins, terpene phenol resins, cumarone-indene resins, α -methyl styrene resins, polymerized tall resin esters, ketone aldehyde resins and

mixtures thereof and wherein said resin has an acid number of less than 1 mg KOH/g and wherein the respective content of said resin in one or more components is from 0 to 70 wt. %.

Claim 55 (previously presented): The multicomponent coating and/or adhesive material of claim 47, wherein the mixing ratio of (a) to (b) is from 20:1 to 1:20.

Claim 56 (previously presented): The multicomponent coating and/or adhesive material of claim 47, wherein at least one of said (a) and (b) comprises at least one further additive known per se with respect to reactive adhesives.

Claim 57 (previously presented): The multicomponent coating and/or adhesive material of claim 47, wherein said material is moisture-reactive.

Claim 58 (cancelled).

Claim 59 (currently amended): The method of claim 58 ~~82~~ wherein the resulting reactive multicomponent coating and/or adhesive material, immediately after being prepared, is fed or conveyed, optionally via intermediate containers, to a profile sheathing plant or to a coating plant.

Claim 60 (cancelled).

Claim 61 (currently amended): The method of claim 58 ~~82~~ wherein the content of said non-isocyanate-reactive polymer in said first component is in the range of from 5 to 35 wt%.

Claim 62 (cancelled).

Claim 63 (cancelled).

Claim 64 (currently amended): The method of claim 58 82 wherein said isocyanate solid at room temperature is selected from the group consisting of 4,4'-diisocyanato-diphenylmethane (MDI), 4,4',4"-triisocyanato-triphenylmethane, tris-(4-isocyanatophenyl)-thiophosphate, 1,5-diisocyanato-naphthalene (NDI) and isomers thereof, dimers of 2,4-diisocyanato-toluene (TDI) and of 1-isocyanato-3-isocyanatomethyl-3,5,5-trimethylcyclohexane (IPDI) and their hydration products, trimers of 1-isocyanato-3-isocyanatomethyl-3,5,5-trimethyl-cyclohexane (IPDI) and mixtures thereof.

Claim 65 (currently amended): The method of claim 58 82 wherein said isocyanate-reactive polymer has an average molecular weight of from 8,000 to 50,000 g/mol, and wherein said isocyanate-reactive polymer is selected from the group consisting of polyesters, polycaprolactonepolyesters, polyethers, polyurethanes, polyamides, polytetrahydrofuranes and mixtures thereof and has at least two isocyanate-reactive groups with reactive hydrogen atoms per molecule.

Claim 66 (currently amended): The method of claim 58 82 wherein said first component has a content of said isocyanate-cyanate-reactive starting polymer from 50 to 95 wt. %

Claim 67 (currently amended): The method of claim 58 82 wherein at least one or more of the components has at least one resin, wherein said resin is selected from the group consisting of aliphatic, cyclic or cycloaliphatic hydrocarbon resins, terpene phenol resins, cumarone-indene resins, α -methyl styrene resins, polymerized tall resin esters, ketone aldehyde resins and mixtures thereof and wherein said resin has an acid number of less than 1 mg KOH/g and wherein the respective amount of

said resin in said least one component is 0 to 70 wt. %.

Claim 68 (currently amended): The method of claim 58 ~~62~~ wherein said first and said second components have a mixing ratio of from 20:1 to 1:20.

Claim 69 (previously presented): A method of bonding materials or continuously coating materials comprising applying the multicomponent coating and/or adhesive material of claim 47 to the material to be bonded or continuously coated.

Claim 70 (previously presented): The method of claim 69 wherein the applying is by spraying, by injection, by nozzle application or by roller application.

Claim 71 (previously presented): The method of claim 69 wherein the materials are bonded and said materials are foam materials and cushions, upholstered furniture and mattresses.

Claim 72 (previously presented): The method of claim 69 wherein the continuous coating is for profile sheathing or cladding.

Claim 73 (cancelled).

Claim 74 (previously presented): The multicomponent coating and/or adhesive material of claim 47 wherein the polyolefin has an average molecular weight M_n of from 10,000 to 20,000 g/mole and a softening range of from 80° to 130°C.

Claim 75 (previously presented): The multicomponent coating and/or adhesive material of claim 47 wherein the isocyanate-reactive polymer has an average molecular weight of from 10,000 to 30,000 g/mol.

Claim 76 (previously presented): The multicomponent coating and/or adhesive

material of claim 56 wherein the least one further additive is at least one of a softener optionally based on phthalic acid or a phosphoric acid ester, glycol acetate, high-boiling organic oils, esters or other additives inducing plastification, stabilizers, antioxidant agents, acidtrapping agents, and age inhibitors.

Claim 77 (previously presented): The multicomponent coating and/or adhesive material of claim 54 wherein the respective amount of said resin in said least one component is 5 to 35 wt.%.

Claim 78 (cancelled).

Claim 79 (currently amended): The method of claim 68 82 wherein the polyolefin has an average molecular weight M_n of from 10,000 to 20,000 g/mole and a softening range from 80° to 130°C.

Claim 80 (previously presented): The method of claim 67 wherein the respective amount of said resin in said least one component is 5 to 35 wt.%.

Claim 81 (cancelled).

Claim 82 (new): A method for preparing a reactive isocyanate-terminated multicomponent coating and/or adhesive material comprising:

(a) mixing or blending a first and a second component, each of said first and second components being in granular form, wherein:

(i) the first component comprises an isocyanate-reactive starting polymer having a molecular weight M_n of at least 8,000 g/mol, wherein the content of said isocyanate-reactive polymer in said first component is 20 to 100 wt.%; and

(ii) the second component comprises a reactive isocyanate-terminated cross-linking agent comprising an isocyanate solid at room-temperature; and wherein said multicomponent coating and/or adhesive material further comprises a polymer which is not isocyanate-reactive and a polyolefin having an average molecular weight M_n of from 5,000 to 25,000 g/mol and a softening range of from 80 to 170 °C; and (b) heating the components while mixing or blending to a liquid state.

Claim 83 (new): The method of claim 82 wherein the resulting reactive multicomponent coating and/or adhesive material, immediately after being prepared, is applied, optionally via an intermediate container, by spraying, by injection, by nozzle application or by roller application.

2. The following is an examiner's statement of reasons for allowance: Regarding new claim 82, the non isocyanate-reactive polymer has been limited to a polyolefin with particular molecular weight and softening point ranges. Rossitto in view of Helmeke and Yang does not teach or suggest such a combination. Helmeke teaches the benefit of the addition of ethylene-vinyl acetate copolymers but there is no suggestion for the addition of polyolefin having the specified characteristics set forth by applicant in the claim.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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JBR